AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for production of a rotor of a centrifugal compressor from a monolithic disc comprising:

working said disc in a first radial direction by at least one rotating tool of a numerical control machine, such as to remove shavings and to thereby produce partial finally contoured radial cavities ~~in the~~ encapsulated within outer surfaces of said rotor ; and

working each disc in a second radial direction, substantially opposite to said first radial direction by at least one other rotating tool of a numerical control machine such as to remove shavings and thereby produce complete, finally contoured radial cavities.

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2. (Previously Presented) A method according to claim 1 wherein said first tool works, starting from an outer diameter of the said disc, until said outer partial radial cavities are produced.

3. (Previously Presented) A method according to claim 2 wherein said first tool advances with successive terracing operations, and works until an intermediate depth is reached relative to an overall width of a circular ring of the said monolithic disc.

4. (Previously Presented) A method according to claim 3 wherein said second tool works, starting from an inner diameter of the said disc, until it reaches said outer partial cavities.

5. (Previously Presented) A method according to claim 4 wherein said first tool and the said second tool are the same tool of the said numerical control machine.